

PTO/SB/08A (07-05)

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Substitute Form 449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 4

Complete if Known

Application Number	10/695,381
Filing Date	October 28, 2003
First Named Inventor	Jene A. Golovchenko
Art Unit	1753
Examiner Name	S. H. Versteeg
Attorney Docket Number	HVD2105

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
ym	A1	US- 4,455,192	06-19-1984	Tamai	
	A2	US- 4,728,591	03-01-1988	Clark et al.	
	A3	US- 4,855,197	08-08-1989	Zapka et al.	
	A4	US- 5,091,320	02-25-1992	Aspnes et al.	
	A5	US- 5,244,527	09-14-1993	Aoyagi	
	A6	US- 5,319,197	06-07-1994	Friedhelm	
	A7	US- 5,420,067	05-30-1995	Hsu	
	A8	US- 5,486,264	01-23-1996	Ghandour	
	A9	US- 5,556,462	09-17-1996	Celii et al.	
	A10	US- 5,753,014	05-19-1998	Van Rijn	
	A11	US- 5,780,852	07-14-1998	Shu	
	A12	US- 5,789,024	08-04-1998	Levy et al.	
	A13	US- 5,851,842	12-22-1998	Katsumata et al.	
	A14	US- 5,798,042	08-25-1998	Chu et al.	
	A15	US- 5,838,005	11-17-1998	Majumdar et al.	
	A16	US- 5,868,947	02-09-1999	Sakaguchi et al.	
	A17	US- 5,876,880	03-02-1999	Vonach et al.	
	A18	US- 5,893,974	04-13-1999	Keller et al.	
	A19	US- 5,962,081	10-05-1999	Ohman et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
ym	A20	EP-0 632 494 A	01-04-1995	Mitsubishi Electric Corp.		
	A21	DE-44 33 845-A	03-28-1996	Fraunhofer Ges Forschung		
	A22	WO-00 78668-A	12-28-2000	Pres & Fellows Harvard Coll.		

Examiner
Signature*Rodney Mc Donald*Date
Considered*4/13/06*

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 2 of 4

Complete if Known

Application Number	10/695,381
Filing Date	October 28, 2003
First Named Inventor	Jene A. Golovchenko
Art Unit	1753
Examiner Name	S. H. Versteeg
Attorney Docket Number	HVD2105

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Jm	A23	US- 5,969,345	10-19-1999	Williams et al.	
	A24	US- 6,080,586	06-27-2000	Baldeschwieler et al.	
	A25	US- 6,106,677	08-22-2000	Sandhu	
	A26	US- 6,383,826	05-07-2002	Barsky et al.	
	A27	US- 6,426,296	07-30-2002	Okojie	
	A28	US- 6,464,842	10-15-2002	Golovchenko et al.	
	A29	US- 2003/0058799	03-27-2003	Yamakawa et al.	
	A30	US- 6,627,067	09-30-2003	Branton et al.	
	A31	US- 2003/0187237	10-02-2003	Chan et al.	
	A32	US- 6,783,643	08-31-2004	Golovchenko et al.	
	A33	US- 2004/0229386	11-18-2004	Golovchenko et al.	
	A34	US- 2005/0126905	06-16-2005	Golovchenko et al.	
	A35	US- 2005/0241933	11-03-2005	Branton et al.	
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Jm	A36	WO 2004/078640-A1	09-16-2004	Technische Universiteit Delft	

Examiner
Signature*Theresa M. Jones*Date
Considered

4/13/06



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Sheet 3 of 4	Attorney Docket Number	HVD2105	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B1	YOLDAS et al., "Formation of Broad Band Antireflective Coatings on Fused Silica for High Power Laser Applications," Thin Solid Films, Vol. 129, pp. 1-14, 1985.	
	B2	SHANK et al., "Fabrication of high aspect ratio structures for microchannel plates," J. Vac. Sci. Technol. B. Vol. 13, No. 6, pp. 2736-2740, Nov/Dec 1995.	
	B3	GRIBOV, et al., "A new fabrication process for metallic point contacts," Microelectronic Engineering, Vol. 35, pp. 317-320, 1997.	
	B4	ERLEBACHER et al., "Spontaneous Pattern Formation on Ion Bombarded Si(001), Phys. Rev. Letts., Vol. 82, No. 11, pp. 2330-2332, March 1999.	
	B5	DESHMUKH et al., "Nanofabrication using a stencil mask," Appl. Phys. Letts. Vol. 75, No. 11, pp. 1631-1633, September 1999.	
	B6	WALKER et al., "Focused ion beam processing for microscale fabrication," Microelectronic Engineering, Vol. 30, pp. 517-522, 1996.	
	B7	WELLOCK et al., "Giant magnetoresistance of magnetic multilayer point contacts," Phys. Rev. B, Vol. 60, No. 14, pp. 10291-10301, October 1999-II.	
	B8	DESAI et al., "Characterization of micromachined silicon membranes for immunosilation and biseparation applications," Jnl of Membrane Science, Vol. 159, pp.221-231, 1999.	
	B9	ERLEBACHER et al., "Nonlinear amplitude evolution during spontaneous patterning of ion-bombarded Si(001)," J. Vac. Sci. Technol. A., Vol. 18, No. 1, pp. 115-120, Jan/Feb 2000.	
	B10	LI et al., "Ion-beam sculpting at nanometre length scales," Nature, Vol. 412, pp. 166-169, July 2001.	

Examiner Signature		Date Considered	9/13/06
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		Examiner Name	S. H. Versteeg
Sheet	4	of	4
		Attorney Docket Number	HVD2105

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B11	GOSCHNICK et al., "Non-uniform SiO2 membranes produced by ion beam-assisted chemical vapor deposition to tune WO3 gas sensor microarrays," Surf. and Coat. Technol., Vol. 108-109, pp. 292-296, 1998.	
	B12	STEIN et al., "Ion-Beam Sculpting Time Scales, Phys. Rev. Lett., Vol. 89, No. 27, pp. 276106-1 - 276106-4, December 2002.	
	B13	GORDON et al., "A Kinetic Model for Step Coverage by Atomic Layer Deposition in Narrow Holes or Trenches," Chemical Vapor Deposition, Vol. 9, No. 2, pp. 73-78, 2003.	
	B14	Li et al., "DNA molecules and configuration in a solid-state nanopore microscope," Nature Materials, Vol. 2, pp. 611-614, September 2003.	

Examiner Signature		Date Considered	9/13/06
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